

ENGINEERING CHANGE NOTICE

DART AEROSPACE LTD

MPP

Date: 09.10.13	Job No.:	ADR Yes/No: Yes	ADR Date: 09.10.13	ECN #: 09- 687
Product No.: D130-780		Created By: HSP	Approved By: MPP	
Product Name: EC 130 Spacepod Installation		Checked By: MPP	General Manager Approval:	

Distribution	Reqd	Resp	Initial / Date
Production Manager	Y	LL	LL
Production Engineering Coord	Y	EC	
Production Document Control	N		
Customer Technical Support	Y	DS	

Distribution	Reqd	Resp	Initial / Date
DQA / QA Coord	Y	SS	
QC Coordinator	N		
Marketing	Y	SW	
Customer Order Processing	N		

Reason for Change:
Parts changes required for the installation of D-ring along the outboard edge of the spacepod

Documents Affected:
D3798 Rev. B

PARTS MUST COMPLY



PREVIOUS PARTS SATISFACTORY



#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	Y	SW	Send 1x D3798-041/-042 to Jim Lindquist - Kallax Flying	
2	Notify Eurocopter France	N			
3					

#	Engineering Actions	Reqd	Resp	Notes	Complete
4	Required Documents/Drawings Under Review	N			
5	Update Product Compatability Matrix	N			
6	Create Eurocopter Form (FEE)	N			
	Notify TC / FAA of Change	N			

#	Document Control Actions	Reqd	Resp	Notes	Complete
8	Move Electronic Files	Y	KJ		
9	Update Blue/Pink/DSI Folder and Electronic Files	N			
10	Update Controlled PDF Files	Y	KJ		09.10.13
11	Update Master Document List (MDL)	Y	HS	MDL-D130-780 Rev. E	
12	Update Document Record (DR)	Y	KJ		
13	Update Product Development Summary	N			
14	Update QSI 021 and/or STC Approval List	N			
15	Update Parts / STC Database	Y	KJ		09.10.13
16	Update / Verify ARC Database	N			
17	Create / Update Change Record Form	Y	KJ	D130-780-041/-042 now at CHG 003	09.10.13
18	Create / Update PPP's	Y	KJ		
19	Update Document Control Database / Laminated Dwgs	N			
20	Update Grey Project Binder	Y	KJ	Add ADR	
21	Update D-Part/M-Drawing/DSI/DEO Master Binders	Y	KJ		09.10.13
22					
23					

Description / Action:

- D3798 Rev. B completes the corrective action for NCR 09-096.
- Update/create estimates for D3798-1/-2/-3/-5/-041/-042 to show current information
- D130-780-041/-042 now at CHG 003
- Update D130-780-041/-042 kits in stock to include D3798-041/-042 Rev. B
- Scrap/rework D3798-041/-042 in stock

1st 2st
swap

UMF 09-10-14

2 x D130-780-042
1 x D130-780-041

* cr. new w/o - yls 52804
52803

pull from SK
remove old
part
replace with
new
part

ECN Verified & Complete: _____ Date: _____

L Lacelle

From: David Shepherd [dshepherd@dartaero.com]
Sent: October 8, 2009 4:34 PM
To: 'Kallax Flyg Jim Lindqvist'
Cc: 'Sian Willems'; 'Harvey Siemens'; 'L Lacelle'; peggy@darths.com
Subject: RE: Spacepod

Jim,

No problem. We should be able to send you 2 new floors with reinforcement and paperwork by the end of next week.

How many D-rings are there to be installed along the outside edge of the pod?

Sian,

Please generate a no charge order for:
1 x D3798-041 Rev. B
1 x D3798-042 Rev. B

to go to Jim Lindqvist at Kallax Flyg.

Thanks,
David

*End of next wk
Oct 14-16*

From: Kallax Flyg Jim Lindqvist [mailto:jim@kallaxflyg.se]
Sent: Thursday, October 08, 2009 12:04 AM
To: 'David Shepherd'
Subject: SV: Spacepod

David,

I would really appreciate to receive new floors with the reinforcement already installed and painted.
We have both RH & LH Spacepods.

Regards

Jim Lindqvist
Maintenance Manager

Kallax Flyg AB
Kyrkbyn 150
SE-941 91 PITEÅ
Sweden
Phone: +46-911-62085
Mobile: +46-911-78187
Fax: +46-911-205025

Från: David Shepherd [mailto:dshepherd@dartaero.com]
Skickat: den 7 oktober 2009 19:22
Till: Kallax Flyg Jim Lindqvist

10/09/09

Kopia: mbellavance@dartaero.com; 'Harvey Siemens'; 'Peggy McDonald'; 'Carrie Pearson'

Ämne: RE: Spacepod

Hi Jim,

Thanks for your quick response. Your email is very helpful. We are in the process of fixing the IIN to correct some errors and will include the information about installing the D-rings in IIN-D130-780 Rev. B. We will send you a copy of this as soon as it is ready, which should be sometime next week.

With respect to your spacepod installation, would you like us to send you a reinforcement strip to rivet to your existing floor or would you like an entirely new floor with the reinforcement strip already installed? Also, have you purchased LH, RH, or LH&RH spacepods?

Thanks,
David

From: Kallax Flyg Jim Lindqvist [mailto:jim@kallaxflyg.se]

Sent: Wednesday, October 07, 2009 12:20 AM

To: 'David Shepherd'

Cc: mbellavance@dartaero.com; 'Harvey Siemens'; 'Peggy McDonald'

Subject: SV: Spacepod

Importance: High

Hello David,

The D-rings is the same as in the roof except for the bottom washer that is rectangular.

I have attached some pictures of the seal support and d-rings etc. (I think that I had to drill out around 100 rivets per side to remove the seal support and anchor nuts and lower baggage door lock receptacle)

I am just mentioning this due to that it is a lot more work to install the spacepods on the EC 130B4 than on the AS 350. To reinstall the original baggage door is not really made in a couple of minutes! You have some riveting to do.

As you thought, my intention for the reinforcement was to install it on the upper side of the floor and just due to be able to countersunk from the bottom.

I just thought that the floor is too thin to only countersunk directly in. Your idea with only a strip is a better solution.

I think that the installation with this reinforcement and d-rings on the floor is a much better solution than the 350A77-1207-20 brackets, because the bracket tends to be bent all the time during loading and unloading of baggage.

I was not able to find the reference for this d-rings in the IPC but I will contact Eurocopter to provide you with some P/N.

I hope that this e-mail helps you.

Regards to you all.

Jim Lindqvist
Maintenance Manager

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Kyrkbyn 150
SE-941 91 PITEÅ
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10/09/09

Mobile: +46-911-78187
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Från: David Shepherd [mailto:dshepherd@dartaero.com]
Skickat: den 7 oktober 2009 02:54
Till: Kallax Flyg Jim Lindqvist
Kopia: mbellavance@dartaero.com; 'Harvey Siemens'; 'Peggy McDonald'
Ämne: FW: Spacepod

Jim,

First of all, thanks for your feedback on the Dart Spacepod installation for the EC130. You are right. Our IIN needs to tell you what to do with those D-Rings. We had 4 x EC 130 aircraft here at Eagle Copters in Calgary (which was where the prototype installation and flight testing were completed), but none of them had the D-Rings installed along the floor.

Further to Marc's email below, please see the attached picture of a D-Ring installed in the roof of the EC130 baggage compartment. Is this the same type of D-Ring that is installed along the outer edge of your existing baggage compartment? If it is, we can work with the D-Ring we have here. If not, is it possible for you to send one to us to take a closer look at? Or could you send us a sketch that shows us the dimensions of the D-Ring? Could you also email us the IPC reference to these D-Rings?

Rather than installing several localized doublers, our preference would be to rivet one 2" wide re-inforcement strip on the top side of the floor along the outer edge of the pod. Do you see a problem with this? And why do you feel the re-inforcement is necessary? Is it to provide sufficient depth for the countersunk screws for the D-Rings?

Thanks in advance for your assistance.

Regards,
Dart Aerospace Ltd.

David Shepherd
Chief Engineer

From: Marc Bellavance [mailto:mbellavance@dartaero.com]
Sent: Tuesday, October 06, 2009 11:40 AM
To: 'David Shepherd'
Subject: FW: Spacepod

David,

Here is the email I have sent to Jim @ Kalax FLYg.

Marc Bellavance
Mechanical Designer/Technical Support

DART aerospace Ltd.

Tel: 613-632-5200 Ext. 240
Fax: 613-632-9311
E-mail: mbellavance@dartaero.com
Web: www.dartaero.com

10/09/09



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From: Marc Bellavance [mailto:mbellavance@dartaero.com]

Sent: October 6, 2009 10:09 AM

To: 'Kallax Flyg Jim Lindqvist'

Cc: 'Dan Stow'; 'peggy@darths.com'; 'Carrie Pearson'

Subject: RE: Spacepod

Hello Jim,

The only issue that we see with your suggestion is that the spacepod floor would not sit down flush with the floor if you add 2" reinforcements under the floor where the D-rings would attach.

Perhaps the reinforcements could be installed on top of the floor or perhaps we don't need reinforcements at all? Maybe attaching the D-rings to the spacepod floor with rivets like the tie down angles is all that is required. Or maybe the fastener size is too large for that?

We need more info to make anymore suggestions.

I will get started on writing the letter. Do you need the "D-ring issue" to be covered by the letter as well?

Regards,

Marc Bellavance

Mechanical Designer/Technical Support

DART aerospace Ltd.

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Fax: 613-632-9311

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From: Kallax Flyg Jim Lindqvist [mailto:]

Sent: October 6, 2009 4:11 AM

To: 'Marc Bellavance'

Cc: 'Dan Stow'; 'peggy@darths.com'; 'Carrie Pearson'

Subject: SV: Spacepod

Hello Marc,

I will accept a letter from you as you explained in the mail.

Another thing, I discussed with Dan about the Tie down angels (P/N: 350A77-1207-20) that your talking about in the IIN-D130-780.

The newer EC 130's has D-rings installed on the floor. This has to be taken care of in your instruction how to do. I personally think that it would be nice to just install small reinforcements like 2" in diameter on the spacepod floor in the same spots as you have showed the angel installation in figure 3. Just rivet these plates in with solid rivets and countersunk for MS 24694- screws from the bottom side.

This will solv the problem, but it's just my opinion.

10/09/09

Please look into this and get back to me.

I will provide DART a conclusion of my notices after we are finished with the helicopter.

Regards

Jim Lindqvist
Maintenance Manager

Kallax Flyg AB
Kyrkbyn 150
SE-941 91 PITEÅ
Sweden
Phone: +46-911-62085
Mobile: +46-911-78187
Fax: +46-911-205025

Från: Marc Bellavance [mailto:mbellavance@dartaero.com]
Skickat: den 25 september 2009 22:11
Till: Kallax Flyg Jim Lindqvist
Kopia: dstow@dartaero.com
Ämne: FW: Spacepod
Prioritet: Hög

Hello Jim,

Considering the fact that the panels seem to be held in place with velcro, would an official letter from *DART* be acceptable for you to modify the aircraft protection panels?
The letter could state something like "It is permissible to rework/trim the baggage compartment (AC) protection panels as required to install the D3815-041 supports".
Please let me know if this type of document and modification would be acceptable and I will write the letter first thing Monday morning.
Oh, I will need additional information for the letter such as aircraft model, serial and registration numbers as well as the part number of the kit(s) you are installing.

Have a good weekend.
Best regards,

Marc Bellavance
Mechanical Designer/Technical Support

DART aerospace Ltd.

Tel: 613-632-5200 Ext. 240
Fax: 613-632-9311
E-mail: mbellavance@dartaero.com
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10/09/09

From: dstow@dartaero.com [mailto:dstow@dartaero.com]
Sent: September 25, 2009 8:14 AM
To: Marc Bellavance
Subject: Fw: Spacepod
Importance: High

Hi Marc could you please assist Jim? I think Harvey might be able to help you with this one.

Thanks

Sent from my BlackBerry device on the Rogers Wireless Network

From: Kallax Flyg Jim Lindqvist
Date: Fri, 25 Sep 2009 13:17:55 +0200
To: 'Dan Stow' <dstow@dartaero.com>
Subject: Spacepod
Hello Dan,

More installation difficulties, due to that this aircraft has airconditioning installed we have a problem with the protection in RH baggage compartment.
The protection has to be trimmed or the D3815-041 fwd web assy has to be reworked.
As you can see on the pictures, I have marked on the protection what we need to remove. (This is just a quick marking)

Please look at the pictures and get back to me.

Jim Lindqvist
Maintenance Manager

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SE-941 91 PITEÅ
Sweden
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Mobile: +46-911-78187
Fax: +46-911-205025

No virus found in this incoming message.
Checked by AVG - www.avg.com
Version: 8.5.420 / Virus Database: 270.14.4/2417 - Release Date: 10/06/09 06:50:00

No virus found in this incoming message.
Checked by AVG - www.avg.com
Version: 8.5.420 / Virus Database: 270.14.5/2418 - Release Date: 10/06/09 18:34:00

No virus found in this incoming message.
Checked by AVG - www.avg.com
Version: 8.5.421 / Virus Database: 270.14.7/2421 - Release Date: 10/07/09 20:49:00

10/09/09

